Ham-Space Digest   Tue, 15 Mar 94   Volume 94 : Issue   58

Today's Topics:
                              Antennas
                  Frustration over sat tracking prgs...
                            new stsplus??
                       Portable AO-13 operation
             STS-62 Orbital State Vector Rev #163 (Post OMS-4)
              Two-Line Orbital Element Set: Space Shuttle

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 15 Mar 94 23:21:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Antennas
To: ham-space@ucsd.edu

Ref AO-13:

I found out today that "nobody likes the Cushcraft satellite antennas".
Is this a fact or just an opinion?
I wonder what is the "better" antenna combination for 144/430? Is the KLM
that great?
I have an Cushcraft R7 and a Mosley CL 33 that I use for
HF right now. I have used Cushcraft antennas for six and VHF before with
no particular problems. Is there a problem with the AOP-1 or what?

Roland WF4P/7J1AKI
cowanr@zama-emh2.army.mil

Date: 10 Mar 94 18:47:08 GMT
From: agate!howland.reston.ans.net!paladin.american.edu!zombie.ncsc.mil!
blackbird.afit.af.mil!sd2!johnsotc@ucbvax.berkeley.edu
Subject: Frustration over sat tracking prgs...
To: ham-space@ucsd.edu

In article <jkondis.763231047@orion.oac.uci.edu>, jkondis@orion.oac.uci.edu (John
Kondis) writes:
|>
|> Has anyone had similar problems? Or do any of you PC wizards have any
|> suggestions? Are there any 'reliable' progs out there that are easy to
|> please???
|>
|> Thanks in advance for any replies...
|> ...John
|> jkondis@orion.oac.uci.edu
|>
|>
|>

Have you tried PC-Track 3.0 on SimTel or garbo?

    oak.oakland.edu   pub/msdos/satelites pctrk30a.zip pctrk30b.zip
    garbo.uwasa.fi   pc/ham   pctk301a.zip pctk301b.zip

Date: Mon, 14 Mar 1994 21:10:18 GMT
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!csulb.edu!csus.edu!
netcom.com!dsharp@network.ucsd.edu
Subject: new stsplus??
To: ham-space@ucsd.edu

brunelli_pc@delphi.com wrote:
> I have heard a few rumors about SOP94???, and that it tracks
> multiple sats. Any info on validity, ftp availability,
> or otherwise would be grealyly appreciated

I found SOP9405 at grivel.une.edu.au in directory
/pub/ham-radio/funet/ham/satellite/tracking.

73, Dave

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Date: Mon, 14 Mar 1994 18:26:44 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!sunic!psinntp!psinntp!
arrl.org!zlau@network.ucsd.edu
Subject: Portable AO-13 operation
To: ham-space@ucsd.edu

Looks like Mode S is the way to go for most
portable station that can work well through
AO-13. Maybe that is why they have Mode B
receiving contests--takes a lot more work to
hear the transponder noise floor....

As I thought, as confirmed by G3RUH in a
recent published letter, the beacon uses
all the transponder power, thus you
want to be *weaker* than the beacon.
During a busy pass, I guess this means you
want your signal to be at least 6 dB
weaker, to accomodate at least 4 users.

My 2 foot dish for for 2.4 GHz receive
is probably too big, I'll be trying a
small helix with a 0.4 dB system NF converter
when (if?) the weather gets nice outside.

Wonder if anyone has gotten the HP PHEMT
to work well on this band? The data sheet
says a device NF of 0.13, but given the
error inherant in such a measurement, it
might be no better than other PHEMTs. I'll
be bringing something to the West Coast
VHF conference for comparison.

--
Zack Lau KH6CP/1   2 way QRP WAS
                            8 States on 10 GHz
Internet: zlau@arrl.org   10 grids on 2304 MHz

Date: Tue, 15 Mar 1994 01:05:04 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
astroman@network.ucsd.edu
Subject: STS-62 Orbital State Vector Rev #163 (Post OMS-4)
To: ham-space@ucsd.edu

Vector format = 7
Satellite Name: STS-62
Catalog Number: 23025   94015A
Epoch Date/Time: 94073.79437932870
                        03/14/1994 19:03:54.374 UTC
ECI X: -5076.328225 km
    Y: 3270.819647 km
    Z: -2756.382000 km
    Xdot: -4.994451884 km/s
    Ydot: -4.657109101 km/s
    Zdot: 3.667411000 km/s
ndot/2 (drag):   0.00069430000 rev/day^2
nddt/6:   7.54270E-06 rev/day^3
Bstar: 9.89890E-05 1/Earth Radii
Elset #:   23
Rev @ Epoch: 163.88529960431

MSDOS/PC software is available for conversion of
OSV to 2 Line Keplerian Elements via ftp to:
oak.oakland.edu:/pub/msdos/hamradio/v2l9331.zip
and the SIMTEL archives.

State Vectors courtesy Ken Ernandes N2WWD

SM

Date: Tue, 15 Mar 1994 00:44:30 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!paladin.american.edu!
zombie.ncsc.mil!blackbird.afit.af.mil!tkelso@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are
carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when
possible). Documentation and tracking software are also available on this
system. As a service to the satellite user community, the most current

elements for the current shuttle mission are provided below. The Celestial
BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using
8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation
and software are also available via anonymous ftp from archive.afit.af.mil
(129.92.1.66) in the directory pub/space.

STS 62
1 23025U 94015A   94073.32846065 .00069430 75427-5 98989-4 0   257
2 23025 39.0144 184.6491 0007547 262.5411 240.1813 16.04851851 1551
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Dr TS Kelso   Assistant Professor of Space Operations
tkelso@afit.af.mil   Air Force Institute of Technology